

Title (en)  
LIGHTWEIGHT NONWOVEN FIBER MATS

Title (de)  
LEICHTE VLIESFASERMATTEN

Title (fr)  
MATS DE FIBRES NON TISSÉS LÉGERS

Publication  
**EP 3987602 A4 20230628 (EN)**

Application  
**EP 20826497 A 20200618**

Priority  
• US 201962864244 P 20190620  
• US 2020038540 W 20200618

Abstract (en)  
[origin: WO2020257526A1] Nonwoven fiber mats include primarily B-glass fibers, and have a thickness of about 10 to about 700 microns and a basis weight of about 1 to 70 g/m<sup>2</sup>. The mats are generally thermally stable at temperatures of up to 650° C, and are suitable for use as battery separators.

IPC 8 full level  
**H01M 10/06** (2006.01); **C08J 5/04** (2006.01); **C08J 5/24** (2006.01); **D04H 1/4218** (2012.01); **D04H 1/645** (2012.01); **D04H 1/732** (2012.01); **H01M 10/16** (2006.01)

CPC (source: EP KR US)  
**D04H 1/4218** (2013.01 - EP); **D04H 1/645** (2013.01 - EP); **D04H 1/732** (2013.01 - EP); **H01M 10/052** (2013.01 - EP KR US); **H01M 10/058** (2013.01 - KR); **H01M 50/403** (2021.01 - US); **H01M 50/414** (2021.01 - EP KR); **H01M 50/42** (2021.01 - US); **H01M 50/4295** (2021.01 - EP KR US); **H01M 50/437** (2021.01 - US); **H01M 50/44** (2021.01 - EP KR US); **H01M 50/446** (2021.01 - KR); **H01M 2220/30** (2013.01 - EP KR); **Y02E 60/10** (2013.01 - EP KR); **Y02P 70/50** (2015.11 - EP KR)

Citation (search report)  
• [XYI] US 9748543 B2 20170829 - HAYAKAWA TOMOHIRO [JP], et al  
• [XYI] JP 2011134930 A 20110707 - MITSUBISHI PAPER MILLS LTD  
• [XYI] JP 2011253709 A 20111215 - MITSUBISHI PAPER MILLS LTD  
• [XYI] US 6511774 B1 20030128 - TSUKUDA TAKAHIRO [JP], et al  
• [XY] US 2006096263 A1 20060511 - KAHLBAUGH BRAD E [US], et al  
• [Y] US 9656196 B2 20170523 - SATO MASASHI [JP], et al  
• [I] US 5415959 A 19950516 - PYSZCZEK MICHAEL F [US], et al  
• See also references of WO 2020257526A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2020257526 A1 20201224**; CN 114287081 A 20220405; EP 3987602 A1 20220427; EP 3987602 A4 20230628; JP 2022537390 A 20220825; JP 7471327 B2 20240419; KR 20220024715 A 20220303; US 2022247036 A1 20220804

DOCDB simple family (application)  
**US 2020038540 W 20200618**; CN 202080058731 A 20200618; EP 20826497 A 20200618; JP 2021575893 A 20200618; KR 20227001850 A 20200618; US 202017596748 A 20200618